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Public-Private Partnership for AD & Composting Project in Prince William County, VA

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Outline

- GBB Introduction
- Background on Prince William County
- Balls Ford Organic Waste Management Project
- Roles and Responsibilities of the partners
- Current status and Next Milestones
- Lessons Learned

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Quality – Value – Ethics – Results



- Established in 1980
- Solid Waste Management and Technology Consultants
- Helping Clients Turn Problems into Opportunities

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GBB's Waste Consulting Services

- Economic, technical and environmental reviews
- Procurements
- Due diligence third-party reviews
- Waste characterization and sourcing
- Process planning and conceptual designs
- Independent feasibility consultant



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GBB Assignment

- Assist Prince William County with the procurement of a full - service developer of an Organic Waste Conversion Technology facility:
 - Determine the Technology Performance Parameters
 - Draft Request for Proposals (RFP) and Service Agreement
 - Assist County throughout the Procurement Process
 - Provide Technical Support for Proposal Evaluation
 - Assist with Negotiations with Selected Vendor
 - In-house engineer during development and construction

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Prince William County, VA

- Located in Northern Virginia
- Population around 440,000
- Department of Public Works owns and operates solid waste handling facilities
- Contracts with private haulers for collection of MSW & recyclables
- Yard Waste drop off services



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Balls Ford Road Yard Waste Site



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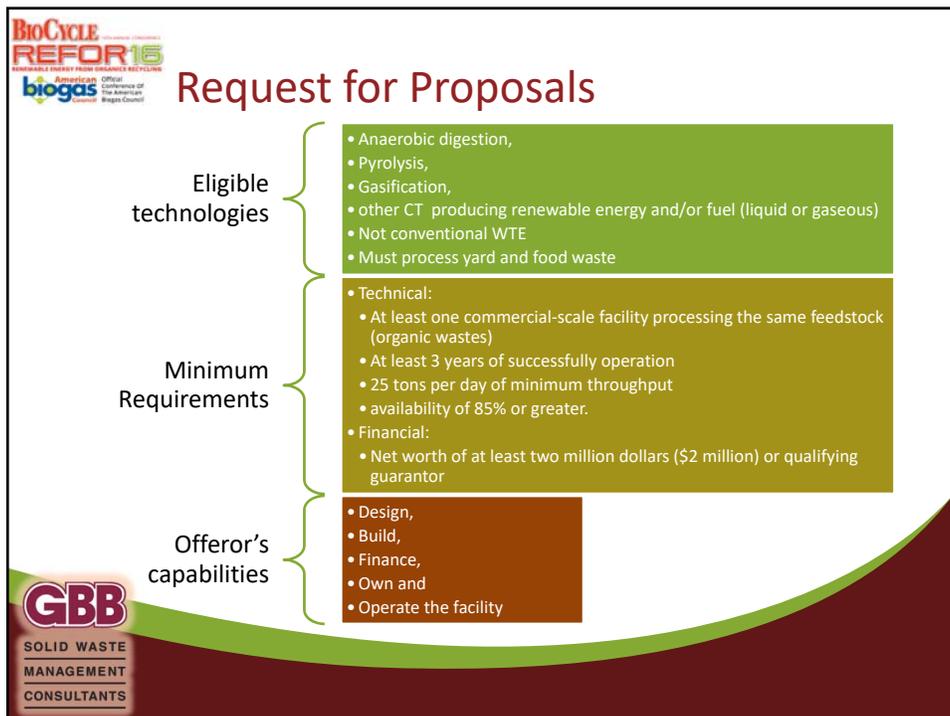
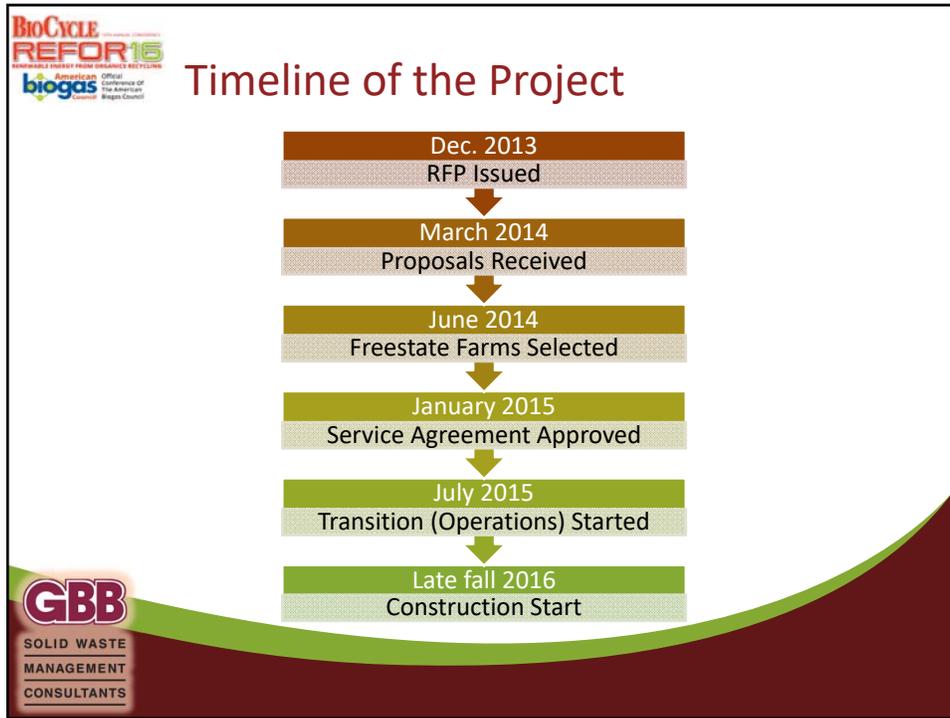
Image courtesy of Prince William County

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County Motivation

- Increase County recycling
- Improve County management of organic wastes:
 - Yard waste
 - Food scraps
 - Wood waste
 - Other organics – biosolids, animal and agri-wastes
- Enhance Balls Ford Road Composting Operations

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Balls Ford Organic Waste Management Project

FREESTATE FARMS

- Public-Private Partnership (PPP) with Freestate Farms LLC
- 20-year agreement with extension options
- Project Technologies:
 - Anaerobic Digestion (AD) of food waste– 30,000-45,000 tpy
 - Advanced Composting of yard waste – 30,000-50,000 tpy
 - Combined heat and power – electricity generation
 - Indoor Organic Food Production
 - Mulching of wood waste
- Expansion – Phase II
 - Anaerobic Digestion – 90,000 tpy
 - Composting – 85,000 tpy

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Balls Ford Organic Waste Management Project



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Image courtesy of Freestate Farms

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Freestate's Technology Providers



Image courtesy of Freestate Farms

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Roles of the Partners

<p>Prince William Co.</p> <ul style="list-style-type: none">• Project Site• In county residential feedstock• Disposal of residues• Tipping fee• Support in permitting, feedstock sourcing, off-take agreements	<p>Freestate Farms</p> <ul style="list-style-type: none">• Technology• Engineering• Permitting• Feedstock agreements• Off-take agreements• Financing• Construction• O&M• Risk
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Project Benefits

Long-term solution for yard and food waste management	Approx. 30% landfill diversion	Landfilled life extended by 10-15 years
Economic benefit	Potential for transportation bio-fuels in future	Increased overall recycling rate
Optimization of existing asset	Compost donations	Education opportunities with the County K12 schools

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Current Status & Next Milestones

- Permitting
- Engineering and construction plan
- Feedstock supply
- Interconnection and offtake
- Digestate management plan

Ongoing

Nov/Dec 2016

- Start Site Work
- Complete financing

Aug 2017

- Start operations of the advanced composting

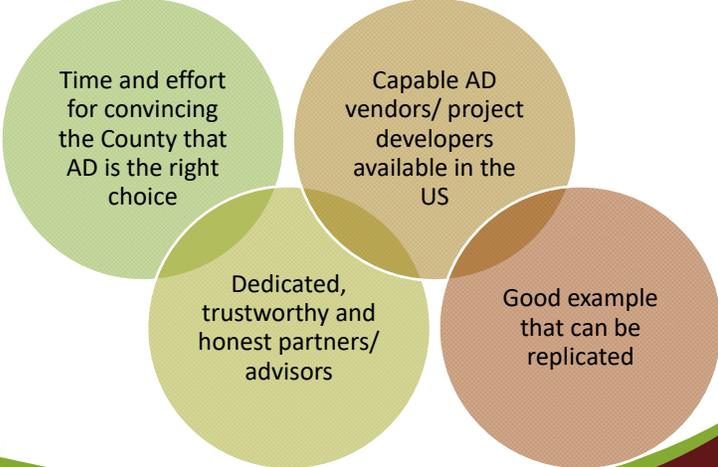
May 2018

- Operations start of the AD system

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Lessons Learned



- Time and effort for convincing the County that AD is the right choice
- Capable AD vendors/ project developers available in the US
- Dedicated, trustworthy and honest partners/ advisors
- Good example that can be replicated



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Thank you!

Questions?

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